REMARKS

Claims 13-15 and 17-29 are pending in the present application of which Claims 13, 14, 18, 20, 22, 24 and 26 are elected and subject to examination.

The rejections of:

(a) Claims 13, 14, [canceled Claim 16], and 24 under 35 U.S.C. §103(a) over Schmidt et al (US 4,775,385) in view of Kuwabara et al (US 5,676,707) and Parker (WO 2001/25386),

(b) Claim 22 under 35 U.S.C. §103(a) over Schmidt et al (US 4,775,385) in view of Kuwabara et al (US 5,676,707) and further in view of Buckman et al (US 4,054,542) and Parker (WO 2001/25386),

(c) Claims 18 and 20 under 35 U.S.C. §103(a) over Schmidt et al (US 4,775,385) in view of Kuwabara et al (US 5,676,707) and further in view of Ohno et al (US 6,809,147) and Parker (WO 2001/25386), and

(d) Claim 26 under 35 U.S.C. §103(a) over Schmidt et al (US 4,775,385) in view of Kuwabara et al (US 5,676,707) and further in view of Natoli et al (US 5,709,714) and Parker (WO 2001/25386),

are respectfully traversed.

In Claim 13, the present invention provides a process for the treatment of leather, comprising:

(a) applying at least one cationic or amphoteric aqueous treatment composition to leather by roll coating and/or roll application and/or spray application and subsequently

(b) treating the leather with an anionic leather treatment composition in a drum,

wherein the cationic or amphoteric aqueous treatment composition used in process step (a) is an epichlorohydrinamine polymer, the polymer having a weight average molar mass of

from $1 \cdot 10^2$ to $2 \cdot 10^5$ g/mol, wherein the concentration of the polymer in water ranges from 5 to 50% by weight based on water.

As previously asserted, Schmidt et al disclose a process for dying leathers, water-soluble cationic polymers, suitable for that purpose, and process for their preparation. According to column 2, line 54 and following a process is disclosed, wherein leather is treated either before and/or during and/or after the dying with a polyamide-amine which is obtained by reacting polyacrylonitrile or acrylonitrile copolymers with one or more polyamines. After treatment of the leather with this cationic polymer mixture, the reaction product is treated with water or with a mixture of water and a water-mixable organic solvent.

Schmidt et al do not disclose the process according to presently pending Claim 13, because the feature that at least one cationic or amphoteric aqueous treatment composition is applied to leather by roll coating and/or roll application and/or spray application is missing in Schmidt et al. In addition, step (b) of the process according to claim 13, treating the leather with an anionic leather treatment composition in a drum, is missing, too. According to the Examiner, the skilled artisan would find the missing features of Schmidt et al in Kuwabara et al. (US 5,676,707).

Kuwabara et al disclose a leather coloring process comprising jetting ink onto a treated leather. According to column 3, line 55 and following, the leather treatment for leather coloring according to Kuwabara et al, is applied on a leather to be colored with a liquid ink containing the coloring material. According to column 4, lines 6 to 15, the liquid in can be imparted to the leather by any method, including a method in which it is directly applied with a paint brush or the like, a method in which it is caused to adhere to only desired areas by using a stencil for textile printing, a method in which it is caused to adhere by jetting in the form of droplets though a jetting nozzle of a spray gun or the like, and a method in which it is caused to adhere by its jetting in the form of minute droplets to jetting nozzles of an in-jet printing head.

According to column 5, lines 29 to 61, the printing ink may contain a resin, i.e., starch, casein, gelatine, maleic anhydride resin, melamine 'esin, urea resin etc. According to example 1 in columns 10 and 11 of Kuwabara et al, the leather is treated with a solution (a) comprising polyvinylpyrrolidone and water, followed by treating with a solution (b) comprising styrene/acrylate copolymer in a water based emulsion, which is non-ionic.

Buckman et al disclose amine-epichlorohydrine polymeric compositions formed by reacting polymeric bis(3-chloro-2-hydroxypropyl)amines with tertiary amines, which are useful in paper making processes, in water purification processes, textiles, manufacturing processes and for the control of pests such as algae, bacteria and fungi (see Abstract).

The structure of these cationic, water-soluble amine-epichlorohydrine polymers according to Buckman et al is shown in column 2, lines 12 to 63. In addition, in column 5, lines 47 to 65, Buckman et al disclose a process for the preparation of paper or paperboard wherein an aqueous fluid containing cellulosic pulp and other paper-making ingredients are formed into a sheet on a Fourdrinier wire cloth, wherein one or more polymers according to Buckman et al are added to the aqueous fluid before the furnish contacts the Fourdrinier wire cloth. According to lines 57 to 65 of column 5 of Buckman et al, these polymers are added at concentrations ranging from 0.05 to 2 % based on the weight of the dry pulp. According to column 6, line 66, the polymers according to Buckman et al can also advantageously be used in various operations used for the processing of cotton textiles.

The combination of Schmidt et al, Kuwabara et al. and Buckman et al, does not point in the direction of the process according to amended claim 13, which is a process for the treatment of leather, comprising steps (a) and (b), wherein in step (a) at least one cationic or amphoteric aqueous treatment composition is applied to leather by roll coating and/or roll application and/or spray application, followed by step (b) treating the leather with an anionic leather treatment composition in a drum, wherein in step (a) an epichlorohydrine amine polymer having a specific

weight average molar mass is used in a high concentration of the polymer in water of 5 to 50 % by weight.

Thus, the key distinction between the claimed invention and the combination of Schmidt et al and Kuwabara et al is that neither of these disclosures provide the cationic or amphoteric aqueous treatment composition used in process step (a) which is an epichlorohydrineamine polymer having a weight average molar mass of from 1 x 10^2 to 2 x 10^5 g/mol wherein the concentration of the polymer in water is 5 to 50% by weight based on water.

The Examiner alleges that the skilled artisan would have found this missing feature obvious in view of Parker or Buckman. Applicants disagree.

In the abstract and the first paragraph on page 1, Parker states that the field of endeavor that their invention relates is to fabric care compositions, including detergent compositions and laundry rinse compositions. Parker also relates to methods of treating fabrics using the compositions of the invention and to the use of anionic polymers in fabric care compositions. Applicants submit that the skilled artisan would clearly understand that the field of fabric care compositions as used in Parker is considerably different from the technical field of leather treatment compositions and processes for the treatment of leather according to the present application.

According to Parker, fabrics that have to be treated with care compositions defined therein are, for example, wool (see page 2, line 27) or cotton (see example on page 24, first paragraph). Fabrics like wool or cotton are different from leather according to the present application. Leather is a durable and flexible material, created via the tanning of skin and therefore comprises proteins as building blocks. In contrast, cotton is made of cellulose (unbranched polysaccharides of glucose molecules which are connected in 1,4 positions).

Although wool also contains proteins, there are significant differences between wool and leather. Whereas wool contains a protein called creatine, leather contains a protein called

collagen. Creatine and collagen show significant chemical differences, for example with respect to type and amount of amino carboxylic acids being present in the respective proteins. For example, whereas wool contains a large amount of sulfur due to the presence of sulfur containing amino carboxylic acid cysteine, this is not the case for collagen. The skilled artisan, then, would not take into account a disclosure relating to cotton or wool when considering leather due to chemical differences between these materials.

Moreover, at the time of the present invention, it was known to the skilled artisan that, for example, reactive dyes that are suitable to be used with wool or cotton could not be transferred to leather. Thus, the skilled artisan with Parker in hand would not have found any reason and/or motivation to combine this reference with Schmidt et al and/or Kuwabara et al.

Moreover, Parker does not disclose or suggest the concentration of the polymer as claimed. According to page 6, at line 27, of the present application, the cationic or amphoteric aqueous treatment compositions are adsorbed in a controlled manner on to the leather Consequently, a dye or a fat is fixed very well on the leather. By means of the novel process of the claimed invention, it is therefore possible to obtain high fastness level of the treated leather (color fastness) and at the same time reduce the individual repair costs. Moreover, the leather quality as a whole is improved, in particular with respect to the levelness, step of color and number of defects.

Specifically, the advantages which can be obtained by the process of the claimed invention is clearly shown by the examples which are presented on pages 7 to 9 of the description of the present application.

In example 1, an epicblorohydrine-dimethylaminopropylamine/benzylamine polymer according to claim 13 is prepared. In example 2, the effect of the mentioned polymer for improving the fastness level without pigment is shown. According to lines 26 to 28 on page 7, the dying of the leather which is obtained from the process according to amended claim 13 of

the present application is substantially more intense than in a comparative experiment without the use of the cationic assistant in the concentration, as claimed in amended claim 13.

In example 3, it is shown that the fastness level with pigment is also improved. According to lines 3 to 7 of page 8, the dying of the leather is substantially more intense than the comparative experiment without the use of the novel compound. Likewise, the levelness of the leather is substantially increased. In particular, the light fastness is substantially improved in comparison with the blank test.

In example 4 it is shown that the surface can be modified with the process according to amended claim 13. According to lines 14 to 17 on page 8, after drying of the leather, the print of the engraving is clearly recognizable on the leather through a deeper color. The surface leathers can thus be easily modified individually by means of printing processes.

Examples 1 to 4 which are present in the description of the present application clearly show that the use of the specific polymer in the specific amount according to amended claim 13 of the presently amended set of claims gives rise to improved leathers.

Accordingly, although Schmidt et al disclose that cationic polymers may be used in the treatment of leather, the polymers that are disclosed in Schmidt et al (see column 4) do not point in the direction of the specific polymer according to the present application. In Schmidt et al a nitrile polymer (a) is used as a first constituent for preparing the amine polymers, which comprises a polyacrylonitrile or a copolymer that has been prepared from acrylonitrile monomers and from acrylic acid, alkyl acrylate, methacrilic acid, alkylmethacrylate, methacrylonotirle, acrylamides, N-acrylacrylamide, etc. Cationic polymers according to the present invention are not disclosed in Schmidt et al. Thus, Schmidt et al does this disclosure provide any reasonable expectation of the benefits illustrated above.

Applicants submit that the claimed process and the aforementioned benefits flowing therefrom are not suggested or apparent in any way from the disclosures of Schmidt et al, Kuwabara et al, Parker et al, and Buckman et al.

In summary, the skilled artisan would not have taken Parker et al into account when viewing the other cited disclosures due to fact that Parker et al relates to a different field of endeavor (fabric treatment compositions, for example detergent compositions). Furthermore, non of the cited references lead to the selection of epichlorohydrineamine-polymers as presently claimed for use as a leather treatment agent. The skilled artisan would not, therefore, have known that the specific cationic polymers according to the presently claimed invention can be used in leather treatment processes at as of the date of the present invention. Thus, the process as presently claimed is not obvious in view of the cited disclosures.

To the extent that the Examiner also relies upon Buckman et al, Applicants again submit that the skilled artisan would not take Buckman et al into account in order to improve a process for treating leather, because he or she would not find it reasonable that a process for treating of paper or paperboard according to Buckman et al can also be applied to a leather-treating process according to claim 13 of the present application.

Although it is mentioned in Buckman et al, that the polymers which are mentioned in this document can also be used for the treatment of cotton textiles, this does not suggest to use the polymers in leather-treating processes, because the surface of a cotton textile is completely different compared to a leather surface.

In addition, the skilled artisan would not discover from Buckman et al that the mentioned polymer shall be used in a very low amount of only 0.05 to 2 %, see column 5, lines 60 to 64 of Buckman et al. The skilled artisan would not discover, from this teaching, that in leather treatment processes, the mentioned polymers shall be used in high amounts of 5 to 50 %by weight.

In order to obtain the process according to amended claim 13 of the present application, the skilled artisan would have to combine Schmidt et al, Kuwabara et al, Parker et al, and Buckman et al. Further, he or she must take into account that a polymer which is suitable for treatments of paper or paperboards according to Buckman et al can also be used in leather treatment, which would not be found reasonable by the skilled artisan.

Further, the skilled artisan would also have to change the amount in which the polymer is present in the treatment composition from a very low amount according to Buckman et al to high amounts according to the present invention. This 5-step procedure to modify the cited art could not be done the skilled artisan without inventiveness or without Applicants' disclosure. Either way, this would not be sufficient to support an obviousness case. .

In view of the foregoing, the presently claimed invention is not disclosed or suggested by the combined disclosures of Schmidt et al, Kuwabara et al, Parker et al, and Buckman et al. Indeed, the skilled artisan would not have any basis to combine the these references and even in so doing would not obtain the presently claimed process.

Withdrawal of these grounds of rejection is requested.

Applicants submit that the present application is in condition for allowance. Early notification to this effect is respectfully requested.

Respectfully submitted,

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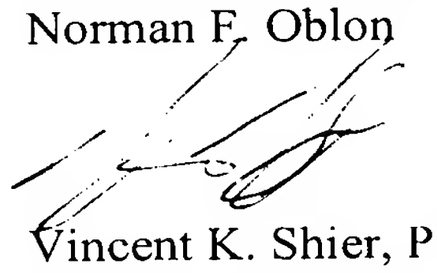

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